

CLAIMS

What is claimed is:

1. An azeotrope-like composition comprising from greater than zero to about 99 wt.% of HFO-1225 and from about 1 wt.% to less than 100 wt.% of a fluid selected from the group consisting of HFO-1243zf, HFC-152a, HFO-1234ze, and combinations of two or more thereof.
2. The azeotrope-like composition of claim 1 comprising from greater than zero to about 75 wt.% of HFO-1225 and from about 25 wt.% to less than 100 wt.% of the fluid selected from the group consisting of HFO-1243zf, HFC-152a, HFO-1234ze, and combinations of two or more thereof.
3. The azeotrope-like composition of claim 1 comprising from about 5 wt.% to about 90 wt.% of HFO-1225 and from about 10 wt.% to about 90 wt. % of the fluid selected from the group consisting of HFO-1243zf, HFC-152a, HFO-1234ze, and combinations of two or more thereof.
4. The azeotrope-like composition of claim 1 wherein said azeotrope-like composition has a boiling point of from about -18°C to about -28°C at about 14 psia.
5. The azeotrope-like composition of claim 1 wherein said azeotrope-like composition has a boiling point of about -22°C to about -28°C at about 14 psia.
6. The azeotrope-like composition of claim 1 wherein said azeotrope-like composition has a boiling point of about -21°C to about -26°C at about 14 psia.
7. The azeotrope-like composition of claim 4 wherein said azeotrope-like composition has a boiling point of about -20°C \pm 2°C at about 14 psia.

8. The azeotrope-like composition of claim 5 comprising from greater than zero to about 50 wt.% of HFO-1225 and from about 50 wt.% to less than 100 wt.% of HFO-1243zf.
9. The azeotrope-like composition of claim 8 comprising from greater than zero to about 25 wt.% of HFO-1225 and from about 75 wt.% to less than 100 wt.% of HFO-1243zf.
10. The azeotrope-like composition of claim 9 comprising from about 1 wt.% to about 20 wt.% of HFO-1225 and from about 80 wt.% to about 99 wt.% of HFO-1243zf.
11. The azeotrope-like composition of claim 8 wherein said azeotrope-like composition has a boiling point of about -24°C to about -28°C at about 14.4 psia.
12. The azeotrope-like composition of claim 8 wherein said azeotrope-like composition has a boiling point of about -23°C to about -27°C at about 14 psia.
13. The azeotrope-like composition of claim 11 comprising from greater than zero to about 50 wt.% of HFO-1225ye and from about 50 wt.% to less than 100 wt.% of HFO-1243zf.
14. The azeotrope-like composition of claim 13 comprising from greater than zero to about 25 wt.% of HFO-1225ye and from about 75 wt.% to less than 100 wt.% of HFO-1243zf.
15. The azeotrope-like composition of claim 14 comprising from about 1 to about 20 wt.% of HFO-1225ye and from about 80 wt.% to about 99 wt.% of HFO-1243zf.

16. The azeotrope-like composition of claim 15 comprising from about 1 to about 15 wt.% of HFO-1225ye and from about 85 wt.% to about 99 wt.% of HFO-1243zf.
17. The azeotrope-like composition of claim 13 wherein said HFO-1225ye comprises Z-HFO-1225ye.
18. The azeotrope-like composition of claim 15 wherein said HFO-1225ye comprises Z-HFO-1225ye.
19. The azeotrope-like composition of claim 18 wherein said azeotrope-like composition has a boiling point of about -26°C to about -28°C at about 14.4 psia.
20. The azeotrope-like composition of claim 13 wherein said HFO-1225ye comprises E-HFO-1225ye.
21. The azeotrope-like composition of claim 15 wherein said HFO-1225ye comprises E-HFO-1225ye.
22. The azeotrope-like composition of claim 21 wherein said azeotrope-like composition has a boiling point of about -26°C to about -28°C at about 14.4 psia.
23. The azeotrope-like composition of claim 13 wherein said HFO-1225ye comprises E/Z-HFO-1225ye.
24. The azeotrope-like composition of claim 15 wherein said HFO-1225ye comprises E/Z-HFO-1225ye.
25. The azeotrope-like composition of claim 24 wherein said azeotrope-like composition has a boiling point of about -26°C to about -28°C at about 14.4 psia.

26. The azeotrope-like composition of claim 12 comprising from greater than zero to about 50 wt.% of HFO-1225zc and from about 50 wt.% to less than 100 wt.% of HFO-1243zf.
27. The azeotrope-like composition of claim 26 comprising from greater than zero to about 40 wt.% of HFO-1225zc and from about 60 wt.% to less than 100 wt.% of HFO-1243zf.
28. The azeotrope-like composition of claim 27 comprising from about 1 to about 20 wt.% of HFO-1225zc and from about 80 wt.% to about 99 wt.% of HFO-1243zf.
29. The azeotrope-like composition of claim 28 wherein said azeotrope-like composition has a boiling point of about -24°C to about -26°C at about 14 psia.
30. The azeotrope-like composition of claim 6 comprising from greater than zero to about 99 wt.% of HFO-1225 and from about 1 wt.% to less than 100 wt.% of HFC-152a.
31. The azeotrope-like composition of claim 30 comprising from greater than zero to about 75 wt.% of HFO-1225 and from about 25 wt.% to less than 100 wt.% of HFC-152a.
32. The azeotrope-like composition of claim 31 comprising from about 1 wt.% to about 20 wt.% of HFO-1225 and from about 80 wt.% to about 99 wt.% of HFC-152a.
33. The azeotrope-like composition of claim 30 wherein said azeotrope-like composition has a boiling point of about -23°C \pm 2°C at about 14 psia.
34. The azeotrope-like composition of claim 33 comprising from greater than zero to about 75 wt.% of HFO-1225ye and from about 25 wt.% to less than 100 wt.% of HFC-152a.

35. The azeotrope-like composition of claim 34 comprising from greater than zero to about 60 wt.% of HFO-1225ye and from about 40 wt.% to less than 100 wt.% of HFC-152a.
36. The azeotrope-like composition of claim 35 comprising from greater than zero to about 40 wt.% of HFO-1225ye and from about 60 wt.% to less than 100 wt.% of HFC-152a.
37. The azeotrope-like composition of claim 36 comprising from about 1 to about 25 wt.% of HFO-1225ye and from about 75 wt.% to about 99 wt.% of HFC-152a.
38. The azeotrope-like composition of claim 34 wherein said HFO-1225ye comprises Z-HFO-1225ye.
39. The azeotrope-like composition of claim 36 wherein said HFO-1225ye comprises Z-HFO-1225ye.
40. The azeotrope-like composition of claim 39 wherein said azeotrope-like composition has a boiling point of about $-23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ at about 14 psia.
41. The azeotrope-like composition of claim 34 wherein said HFO-1225ye comprises E-HFO-1225ye.
42. The azeotrope-like composition of claim 36 wherein said HFO-1225ye comprises E-HFO-1225ye.
43. The azeotrope-like composition of claim 42 wherein said azeotrope-like composition has a boiling point of about $-23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ at about 14 psia.
44. The azeotrope-like composition of claim 34 wherein said HFO-1225ye comprises E/Z-HFO-1225ye.

45. The azeotrope-like composition of claim 36 wherein said HFO-1225ye comprises E/Z-HFO-1225ye.
46. The azeotrope-like composition of claim 45 wherein said azeotrope-like composition has a boiling point of about -26°C to about -28°C at about 14.4 psia.
47. The azeotrope-like composition of claim 30 wherein said azeotrope-like composition has a boiling point of about -24°C \pm 2°C at about 14 psia.
48. The azeotrope-like composition of claim 47 comprising from about 10 wt.% to about 99 wt.% of HFO-1225zc and from about 1 wt.% to about 90 wt.% of HFC-152a.
49. The azeotrope-like composition of claim 48 comprising from about 10 wt.% to about 60 wt.% of HFO-1225zc and from about 40 wt.% to about 90 wt.% of HFC-152a.
50. The azeotrope-like composition of claim 49 comprising from about 10 wt.% to about 50 wt.% of HFO-1225zc and from about 50 wt.% to about 90 wt.% of HFC-152a.
51. The azeotrope-like composition of claim 7 comprising from about 1 wt.% to about 99 wt.% of HFO-1225 and from about 1 wt.% to about 99 wt.% of HFO-1234ze.
52. The azeotrope-like composition of claim 51 comprising from about 25 wt.% to about 99 wt.% of HFO-1225 and from about 1 wt.% to about 75 wt.% of HFO-1234ze.
53. The azeotrope-like composition of claim 52 comprising from about 50 wt.% to about 90 wt.% of HFO-1225 and from about 10 wt.% to about 50 wt.% of HFO-1234ze.

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54. The azeotrope-like composition of claim 51 wherein said HFO-1225 is HFO-1225ye.
55. The azeotrope-like composition of claim 54 wherein said HFO-1225ye comprises Z-HFO-1225ye.
56. The azeotrope-like composition of claim 54 wherein said HFO-1225ye comprises E-HFO-1225ye.
57. The azeotrope-like composition of claim 54 wherein said HFO-1225ye comprises E/Z-HFO-1225ye.
58. The azeotrope-like composition of claim 1 wherein said HFO-1225 is HFO-1225yc.
59. A refrigerant composition comprising an azeotrope-like composition of claim 1.
60. A refrigeration system comprising a refrigerant of claim 59.
61. A method for cooling an article which comprises evaporating a refrigerant composition of claim 57 in the vicinity of the article to be cooled.
62. A method for heating an article which comprises condensing a refrigerant composition of claim 59 in the vicinity of the article to be heated.
63. A sprayable composition comprising a material to be sprayed and a propellant comprising an azeotrope-like composition of claim 1.
64. A blowing agent comprising an azeotrope-like composition of claim 1.

65. A closed cell foam prepared by foaming a foamable composition in the presence of a blowing agent comprising the azeotrope-like composition of claim 1.
66. The closed cell foam of claim 65 wherein said foamable composition comprises polyurethane, polyisocyanurate, polystyrene, polyethylene, and mixtures thereof.
67. A method of reducing the flammability of a fluid comprising adding an azeotrope-like composition of claim 1 to said fluid.
68. A method of suppressing a flame comprising contacting said flame with a fluid comprising an azeotrope-like composition of claim 1.
69. A method of sterilizing an article, said method comprising contacting said article to be sterilized with a composition comprising an azeotrope-like composition of claim 1.
70. The method of claim 69 wherein said composition further comprises ethylene oxide.
71. A method of forming a foam comprising adding to a foamable composition a blowing agent comprising an azeotrope-like composition of claim 1
72. A premix of a polyol and a blowing agent wherein the blowing agent comprises an azeotrope-like composition of claim 1.